

(d) The letter of compliance shall be limited to a period of validity which shall not exceed 2 years. For cause, the letter of compliance may be suspended or revoked as authorized by law or regulations in this chapter.

§ 105.15-20 Exhibition of letter of compliance.

(a) On every vessel subject to this part, the original letter of compliance shall be framed under glass or other suitable transparent material and posted in a conspicuous place protected from the weather.

Subpart 105.20—Specific Requirements—Cargo Tanks

§ 105.20-1 Plans and/or sketches.

(a) The owners, master, or agent of a commercial fishing vessel shall submit with his application for the initial inspection a brief description and the plans and/or sketches of the cargo tanks and piping systems for filling and dispensing cargo; dimensions and identifications of material shall be included.

(b) If cargo tanks will be located in enclosed compartments or below decks, the plans and/or sketches shall also show the proposed ventilation system.

(c) Plans and/or sketches are not required if the cargo tanks and piping systems have previously been accepted by the Coast Guard.

§ 105.20-3 Cargo tanks.

(a) *Construction and Materials.* (1) The cargo tanks must be constructed of iron, steel, copper, nickel alloy, copper alloy; or aluminum. The tanks shall be designed to withstand the maximum head to which they may be subjected, except that in no case shall the thickness of the shell or head be less than that specified in this subparagraph. Tanks of over 150 gallons capacity shall have a minimum thickness as indicated in Table 105.20-3(a)(1):

TABLE 105.20-3(a)(1)

Material	A.S.T.M. specification (latest edition)	Thickness in inches and gage number ^{2,3}
Nickel copper	B127, hot rolled sheet or plate.	0.107 (USSG 12).

TABLE 105.20-3(a)(1)—Continued

Material	A.S.T.M. specification (latest edition)	Thickness in inches and gage number ^{2,3}
Copper nickel ¹	B122, Alloy No. 5.	0.128 (AWG 8).
Copper ¹	B152, Type ETP	0.182 (AWG 5).
Copper silicon ¹	B97, Alloys A, B, and C.	0.144 (AWG 7).
Steel or iron	0.179 (MSG 7).
Aluminum ⁴	B209, Alloy	⁵ 5086 0.250 (USSG 3).

¹Tanks fabricated with these materials shall not be utilized for the carriage of diesel oil.

²The gage numbers used in this table may be found in many standard engineering reference books. The letters "USSG" stand for "U.S. Standard Gage" which was established by the act of Mar. 3, 1892 (15 U.S.C. 206) for sheet and plate iron and steel. The letters "AWG" stand for "American Wire Gage" (or Brown and Sharpe Gage) for nonferrous sheet thicknesses. The letters "MSG" stand for "Manufacturers' Standard Gage" for sheet steel thicknesses.

³Tanks over 400 gallons shall be designed with a factor of safety of four on the ultimate strength of the tank material used with a design head of not less than 4 feet of liquid above the top of the tank.

⁴Anodic to most common metals. Avoid dissimilar-metal contact with tank body unless galvanically compatible.

⁵And other alloys acceptable to the Commandant.

(2) All tank joints, connections, and fittings shall be welded or brazed. Tanks with flanged-up top edges will not be acceptable.

(3) All tanks exceeding 30 inches in any horizontal dimension shall be fitted with vertical baffle plates of the same material as the tank. Limber holes at the bottom and air holes at the top of all baffles shall be provided. Tanks constructed of material of greater thickness than minimum requirements and that are reinforced with stiffeners may be accepted without baffles.

(4) An opening fitted with a threaded pipe plug may be used on the bottom of the tank for cleaning purposes.

(b) *Supports.* (1) Tanks shall be adequately supported and braced to prevent movement. The supports and braces shall be insulated from contact with the tank surface with a nonabrasive and nonabsorbent material.

(c) *Fittings.* (1) Filling lines shall be at least 1½ inches standard pipe size and extend to within 1½-pipe diameters of the bottom of the tank.

(2) Suction lines from diesel oil tanks may be taken from the bottom provided a shutoff valve is installed at the tank. Tanks for Grades B and C liquids shall have top suctions only.

(3) Vent lines shall be at least equal in size to the filling lines.